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EXAMINER	
HAROON, ADEEL	

ART UNIT	PAPER NUMBER
2618	

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/612,758	NAIDU ET AL.
	Examiner	Art Unit
	Adeel Haroon	2685

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 01 February 2006.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-61 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-61 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

1. This Office Action is in response to Amendment filed on date: 2/01/06.

Claims 1-61 are still pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 16, 31, 42, 44, and 55 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 31-34, 41, 44-47, and 52-61 rejected under 35 U.S.C. 102(b) as being anticipated by Edwards et al. (U.S. 6,075,499).

With respect to claim 31, Edwards et al. disclose a device for processing data associated with an installation of an antenna, comprising a processor, computing

device, to receive an input associated with a measured orientation of an antenna; compare the input data with a desired mounting configuration of the antenna, wherein the data is obtained using a positional data of a stationary base station; and generating a signal based on the comparing (Column 4, lines 46-65).

With respect to claim 32, Edwards et al. disclose reading the data from a memory unit (Column 2, lines 45-52).

With respect to claim 33, Edwards et al. further disclose receiving input from a circuit-based compass (Column 4, lines 51-54).

With respect to claim 34, Edwards et al. further discloses measured and desired orientation of the antenna comprises an azimuth angle of the antenna (Column 5, lines 7-12).

With respect to claim 41, Edwards et al. disclose a digital signal processor, a meter, that processes the received RF signal and generates a signal when the processed RF signal has a desirable quality (Column 5, lines 44-46).

With respect to claim 44, Edwards et al. disclose a method of installing an antenna by securing the antenna to a structure, element number 12 Column 3, line 61 – Column 4, line 4). Edwards et al. also disclose the antenna carrying a feedback device, computing device, that provides a signal based on an orientation of the antenna and desired mounting configuration of the antenna and adjusting a position of the antenna based on the signal, wherein it is based on a position of a stationary base station (Column 4, lines 46-65).

With respect to claim 45, Edwards et al. further discloses measured and desired orientation of the antenna comprises an azimuth angle of the antenna (Column 5, lines 7-12).

With respect to claim 46, Edwards et al. further discloses measured and desired orientation of the antenna comprises an elevation angle of the antenna (Column 4, line 67 – Column 5, line 2).

With respect to claim 47, Edwards et al. further discloses the indicator comprises a display therefore being an optical signal and adjustment is based on the value of the display (Column 4, lines 46-50).

With respect to claims 52 and 53, Edwards et al. further discloses changing the elevation and azimuth angle of the antenna (Column 4, line 67 – Column 5, line 2).

With respect to claim 54, Edwards et al. further disclose a memory unit with data associated with the desired mounting configuration of the antenna (Column 2, lines 45-52).

With respect to claim 55, Edwards et al. disclose a method for an alignment device for an antenna. Edwards et al. disclose a memory unit with data associated with a desired mounting configuration of the antenna, wherein the data is determined based on positional information of a base station (Column 2, lines 45-52). It is considered inherent that this data must be initially inputted into the memory unit.

With respect to claims 56, Edwards et al. disclose the data comprising desired orientation of the antenna (Column 2, lines 45-52).

With respect to claims 57, Edwards et al. disclose the data comprising desired azimuth angle of the antenna (Column 5, lines 7-12).

With respect to claims 58, Edwards et al. disclose the data comprising desired elevation angle of the antenna (Column 4, line 67 – Column 5, line 2).

With respect to claim 59, Edwards et al. further disclose determining the desired orientation of the antenna (Column 4, lines 46-64).

With respect to claims 60 and 61, Edwards et al. disclose determining the desired orientation of the antenna (Column 4, lines 46-64). It is considered inherent that the determining the relative positions between the base station and the structure is essential in determining azimuth and elevation angles since these angles are entirely dependent from positional information.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-30, 35-40, 42-43, and 49-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards et al. (U.S. 6,075,499) in view of Matz et al. (U.S. 6,683,581).

With respect to claim 1, Edwards et al. disclose a system for receiving a communication signal with an antenna, element number 10, that can be coupled to a subscriber terminal (Column 3, line 61 – Column 4, line 4). Edwards et al. teach a compass being adapted to measure an orientation of the antenna (Column 4, lines 51-54). Edwards et al. disclose a memory unit for storing data associated with a desired mounting configuration of the antenna, wherein the data comprises information regarding a position of a stationary base station (Column 2, lines 45-52). Edwards et al. further disclose a processor, computing device, is coupled to the compass and memory unit, is used to align the antenna with the base station using the data stored in the memory thus generating a signal based on the orientation of the antenna (Column 4, lines 46-65). Edwards et al. do not expressly disclose the compass being secured to the antenna. However, Matz et al. disclose an antenna alignment system thus making it analogous art since it is in the same field of endeavor. Matz et al. teach a system comprising an antenna, element number 130, that can be coupled to a subscriber terminal and a compass, element number 140, secured to the antenna measuring an orientation of the antenna (Column 8, lines 57-64). Matz et al. also disclose generating a signal based on a measured orientation of the antenna by the compass as the display using a processor (Column 11, lines 17-30). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention to secure the compass and measuring device to the antenna as taught by Matz et al. in the system of Edwards

et al. in order to provide “an alignment device that can be quickly and accurately attached to an antenna” (Matz et al., Column 3, lines 37-40).

With respect to claim 2, Edwards et al. disclose that the data is associated with a desired azimuth angle of the antenna (Column 5, lines 7-12).

With respect to claims 3 and 4, Matz et al. further discloses the processor generating a signal, display signal, when the measured azimuth angle is the same or not the same as the desired azimuth angle (Column 11, lines 22-30). Therefore, it would be obvious to one of ordinary skill in the art to use Matz et al.'s signal generation technique in the modified system of Edwards et al. and Matz et al. in order to provide precise alignment information to the installer.

With respect to claim 5, Matz et al. further discloses an indicator, element number 142, to receive the signal (Column 11, lines 22-30).

With respect to claim 6, Matz et al. further discloses the indicator comprises a digital display therefore having a light source for generating an optical signal (Column 11, lines 22-30).

With respect to claim 7, Matz et al. further discloses using an audio source for generating a signal as an indicator for alignment of the antenna (Column 12, lines 7-15).

With respect to claims 8 and 9, Matz et al. further discloses an indicator, element number 142, emitting a signal, display signal, when the measured azimuth angle is the same or not the same as the desired azimuth angle (Column 11, lines 22-30).

With respect to claim 10, Edwards et al. disclose a processor to generate a signal based on a measured elevation angle of the antenna and the data stored in the

memory unit (Column 4, lines 46-65). Edwards et al. do not expressly disclose a tilt sensor. However, Matz et al. disclose a tilt sensor, element number 150, secured to the antenna measuring an elevation angle (Column 8, line 65 – Column 9, line 15). Matz et al. also disclose generating a signal based on a measured elevation angle of the antenna by the tilt sensor as the display using a processor (Column 11, lines 17-30). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention to secure the compass and measuring device to the antenna as taught by Matz et al. in the system of Edwards et al. in order to provide "an alignment device that can be quickly and accurately attached to an antenna" (Matz et al., Column 3, lines 37-40).

With respect to claim 11, Edwards et al. disclose that the data is associated with a desired elevation angle of the antenna (Column 2, lines 45-52).

With respect to claim 12, Edwards et al. disclose a positional sensor, GPS receiver, adapted to measure a position of the antenna (Column 4, lines 46-50). Edwards et al. disclose a processor to generate a signal based on a measured position of the antenna and the data stored in the memory unit (Column 4, lines 46-65). Edwards et al. do not expressly disclose a positional sensor. Edwards et al. do not expressly disclose the positional sensor being secured to the antenna. However, Matz et al. discloses a position sensor, element number 160, secured to the antenna measuring an elevation angle (Column 9, line 16-36). Matz et al. also discloses generating a signal based on a measured position of the antenna by the position sensor as the display using a processor (Column 11, lines 17-30). Therefore, it would be obvious to one of

ordinary skill in the art at the time of the applicant's invention to secure the compass and measuring device to the antenna as taught by Matz et al. in the system of Edwards et al. in order to provide "an alignment device that can be quickly and accurately attached to an antenna" (Matz et al., Column 3, lines 37-40).

With respect to claim 13, Edwards et al. disclose that the data is associated with a desired position of the antenna (Column 2, lines 45-52).

With respect to claims 14 and 15, Edwards et al. disclose a digital signal processor, a meter, that processes the received RF signal and generates a signal when the processed RF signal has a desirable quality (Column 5, lines 44-46).

With respect to claim 16, Edwards et al. disclose a device for installing an antenna (Column 3, line 61 – Column 4, line 4). Edwards et al. teach a compass being adapted to measure an orientation of the antenna (Column 4, lines 51-54). Edwards et al. disclose a memory unit for storing data associated with a desired mounting configuration of the antenna, wherein the data comprises information regarding a position of a stationary base station (Column 2, lines 45-52). Edwards et al. further disclose a processor, computing device, is coupled to the compass and memory unit, is used to align the antenna with the base station using the data stored in the memory thus generating a signal based on the orientation of the antenna (Column 4, lines 46-65). Edwards et al. do not expressly disclose the compass being secured to the antenna. However, Matz et al. disclose an antenna alignment system thus making it analogous art since it is in the same field of endeavor. Matz et al. discloses a device for installing an antenna, comprising a structure, element number 112, and a compass,

element number 140, secured to the antenna measuring an orientation of the antenna (Column 8, lines 57-64 and Column 9, lines 36-38). Matz et al. also discloses generating a signal based on a measured orientation of the antenna by the compass as the display using a processor (Column 11, lines 17-30). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention to secure the compass and measuring device to the antenna as taught by Matz et al. in the system of Edwards et al. in order to provide "an alignment device that can be quickly and accurately attached to an antenna" (Matz et al., Column 3, lines 37-40).

With respect to claim 17, Edwards et al. disclose that the data is associated with a desired azimuth angle of the antenna (Column 5, lines 7-12).

With respect to claims 18 and 19, Matz et al. further discloses the processor generating a signal, display signal, when the measured azimuth angle is the same or not the same as the desired azimuth angle (Column 11, lines 22-30). Therefore, it would be obvious to one of ordinary skill in the art to use Matz et al.'s signal generation technique in the modified system of Edwards et al. and Matz et al. in order to provide precise alignment information to the installer.

With respect to claim 20, Matz et al. further discloses an indicator, element number 142, to receive the signal (Column 11, lines 22-30).

With respect to claim 21, Matz et al. further discloses the indicator comprises a digital display therefore having a light source for generating an optical signal (Column 11, lines 22-30).

With respect to claim 22, Matz et al. further discloses using an audio source for generating a signal as an indicator for alignment of the antenna (Column 12, lines 7-15).

With respect to claims 23 and 24, Matz et al. further discloses an indicator, element number 142, emitting a signal, display signal, when the measured azimuth angle is the same or not the same as the desired azimuth angle (Column 11, lines 22-30).

With respect to claim 25, Edwards et al. disclose a processor to generate a signal based on a measured elevation angle of the antenna and the data stored in the memory unit (Column 4, lines 46-65). Edwards et al. do not expressly disclose a tilt sensor. However, Matz et al. disclose a tilt sensor, element number 150, secured to the antenna measuring an elevation angle (Column 8, line 65 – Column 9, line 15). Matz et al. also disclose generating a signal based on a measured elevation angle of the antenna by the tilt sensor as the display using a processor (Column 11, lines 17-30). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention to secure the compass and measuring device to the antenna as taught by Matz et al. in the system of Edwards et al. in order to provide "an alignment device that can be quickly and accurately attached to an antenna" (Matz et al., Column 3, lines 37-40).

With respect to claim 26, Edwards et al. disclose that the data is associated with a desired elevation angle of the antenna (Column 2, lines 45-52).

With respect to claim 27, Edwards et al. disclose a positional sensor, GPS receiver, adapted to measure a position of the antenna (Column 4, lines 46-50).

Edwards et al. disclose a processor to generate a signal based on a measured position of the antenna and the data stored in the memory unit (Column 4, lines 46-65). Edwards et al. do not expressly disclose a positional sensor. Edwards et al. do not expressly disclose the positional sensor being secured to the antenna. However, Matz et al. discloses a position sensor, element number 160, secured to the antenna measuring an elevation angle (Column 9, line 16-36). Matz et al. also discloses generating a signal based on a measured position of the antenna by the position sensor as the display using a processor (Column 11, lines 17-30). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention to secure the compass and measuring device to the antenna as taught by Matz et al. in the system of Edwards et al. in order to provide "an alignment device that can be quickly and accurately attached to an antenna" (Matz et al., Column 3, lines 37-40).

With respect to claim 28, Edwards et al. disclose that the data is associated with a desired position of the antenna (Column 2, lines 45-52).

With respect to claims 29 and 30, Edwards et al. disclose a digital signal processor, a meter, that processes the received RF signal and generates a signal when the processed RF signal has a desirable quality (Column 5, lines 44-46).

With respect to claims 35 and 36, the device of Edwards et al. is described above in the discussion of claim 34. Edwards et al. do not expressly disclose a prescribed threshold level. However, Matz et al. disclose an antenna alignment system thus making it analogous art since it is in the same field of endeavor. Matz et al. teach a system comprising an antenna, element number 130, that can be coupled to a

subscriber terminal and a compass, element number 140, secured to the antenna measuring an orientation of the antenna (Column 8, lines 57-64). Matz et al. also disclose generating a signal based on a measured orientation of the antenna by the compass as the display using a processor (Column 11, lines 17-30). Matz et al. further discloses the processor generating a signal, display signal, when the measured azimuth angle is the same or not the same as the desired azimuth angle (Column 11, lines 22-30). Therefore, it would be obvious to one of ordinary skill in the art to use Matz et al.'s signal generation technique in the modified system of Edwards et al. and Matz et al. in order to provide precise alignment information to the installer.

With respect to claims 37 and 38, the device of Edwards et al. is described above in the discussion of claim 34. Edwards et al. do not expressly disclose a tilt sensor. However, Matz et al. disclose an antenna alignment system thus making it analogous art since it is in the same field of endeavor. Matz et al. disclose a tilt sensor, element number 150, secured to the antenna measuring an elevation angle (Column 8, line 65 – Column 9, line 15). Matz et al. also disclose generating a signal based on a measured elevation angle of the antenna by the tilt sensor as the display using a processor (Column 11, lines 17-30). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention to secure the compass and measuring device to the antenna as taught by Matz et al. in the system of Edwards et al. in order to provide "an alignment device that can be quickly and accurately attached to an antenna" (Matz et al., Column 3, lines 37-40).

With respect to claims 39 and 40, Matz et al. further discloses the processor generating a signal, display signal, when the measured elevation angle is the same or not the same as the desired elevation angle (Column 11, lines 22-30).

With respect to claim 42, Edwards et al. disclose a system for receiving a communication signal with an antenna, element number 10, that can be coupled to a subscriber terminal (Column 3, line 61 – Column 4, line 4). Edwards et al. teach a compass being adapted to measure an orientation of the antenna (Column 4, lines 51-54). Edwards et al. disclose a memory unit for storing data associated with a desired mounting configuration of the antenna, wherein the data comprises information regarding a position of a stationary base station (Column 2, lines 45-52). Edwards et al. do not expressly disclose the compass being secured to the antenna. However, Matz et al. disclose an antenna alignment system thus making it analogous art since it is in the same field of endeavor. Matz et al. teach a system comprising an antenna, element number 130, that can be coupled to a subscriber terminal and a compass, element number 140, secured to the antenna measuring an orientation of the antenna (Column 8, lines 57-64). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention to secure the compass and measuring device to the antenna as taught by Matz et al. in the system of Edwards et al. in order to provide "an alignment device that can be quickly and accurately attached to an antenna" (Matz et al., Column 3, lines 37-40).

With respect to claim 43, Edwards et al. further disclose receiving input from a circuit-based compass (Column 4, lines 51-54).

With respect to claims 49 and 50, the device of Edwards et al. is described above in the discussion of claim 44. Edwards et al. do not expressly disclose an audio signal. However, Matz et al. disclose an antenna alignment system thus making it analogous art since it is in the same field of endeavor. Matz et al. further discloses using an audio source for generating a signal as an indicator for alignment of the antenna and using the audio signal and the termination of the audio signal as the basis for the antenna positioning and orienting (Column 12, lines 7-15). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention to apply Matz et al.'s audio signaling technique to the system of Edwards et al. in order to provide an audio indication to the installer.

With respect to claims 51, the device of Edwards et al. is described above in the discussion of claim 44. Edwards et al. do not expressly disclose a text message. However, Matz et al. disclose an antenna alignment system thus making it analogous art since it is in the same field of endeavor. Matz et al. further discloses the indicator comprises a digital display therefore being a text message and adjustment is based on the value of the display (Column 11, lines 22-30). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention to apply Matz et al.'s text messaging technique to the system of Edwards et al. in order to provide a text indication to the installer.

7. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards et al. (U.S. 6,075,499).

With respect to claim 48, the method of Edwards et al. is described above in the discussion of claim 44. Edwards et al. disclose the indicator comprises a digital display therefore being an optical signal (Column 14, lines 46-50). Edwards et al. do not expressly disclose the termination of the terminal signal. However, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention to use the termination of the optical signal, as an adjustment-positioning indicator in order to conserve power of the display by turning the indicator off when not needed.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adeel Haroon whose telephone number is (571) 272-7405. The examiner can normally be reached on Monday thru Friday, 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AH
3/17/06

NguyenVo
3-19-2006

NGUYEN T. VO
PRIMARY EXAMINER